just outlined, which has developed in the United States in the past 10 years, has given rise to health hazards on a scale previously unknown to medicine. The problem is magnified by the number of women who are taking some type of birth control pill. In the United States alone, according to the estimates of the Food and Drug Administration, approximately 8½ to 9 million women are currently consuming these synthetic chemicals, not for the treatment of disease but solely for purpose of contraception. I think it can be stated fairly that never in history have so many individuals taken such potent drugs with so little information available as to actual and potential hazards.

The fundamental problem with the oral contraceptives can be readily understood by anyone: It is medically unsound to administer such powerful synthetic hormones in order to achieve birth control objectives which can be reached by simple means of greater safety. This view was expressed by prominent gynecologic endocrinologists prior to the approval of the pill for contraception 10 years ago, and subsequent history has shown that it is even more true today.

Meanwhile, 9 million women are consuming these compounds almost automatically and without much information about the hazards. The impression has been given the public that the oral contraceptives are nothing more than innocent natural female hormones. Yet milligram for milligram the synthetic chemicals used in these pills are 20 to 40 times as potent as the natural estrogenic substances. To think of them as natural is comforting but quite false.

The synthetic chemicals in the pills are quite unnatural with respect to their manufacture and with respect to their behavior once they are introduced into the human body. In using these agents, we are in fact embarked on a massive endocrinologic experiment with millions of healthy women.

The hazards of the pill with respect to sudden death from blood clots have received fairly widespread attention. British investigators established this hazard in April 1968. Their publication ended years of wishful thinking on the subject. The British estimate that 30 women die from this single complication per million users of the pill each year, and as you previously indicated, Senator Nelson, the involvement with non-fatal episodes is somewhere in the range of one per thousand to one per 2,000, depending on the estimate.

Similar findings are now available from Dr. Sartwell's study conducted for the Food and Drug Administration in this country. One can argue that this is an acceptable risk, since it is safer to take the pill than for 1 million women to become pregnant.

Mr. GORDON. Dr. Davis, may I interrupt for a moment? The one in 2,000 refers to thromboembolic disorders?

Dr. DAVIS. Nonfatal. That is blood clots which require medical attention or which come to medical attention but which do not terminate fatally.

Mr. GORDON. But there are other types of side effects, are there not?

Dr. DAVIS. Certainly.

I was just dealing with this one point.

Mr. DUFFY. Dr. Davis, if I may interrupt you, did you not say that the number one to 2,000 was an estimate?

Dr. DAVIS. That was one assessment of the level of risk. It depends somewhat on the type of pill; it also depends on the age of the